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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,953	03/30/2004	Mark J. Buxton	42P16961	5859

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EXAMINER

TUNG, KEE M

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,953

Applicant(s)

BUXTON ET AL.

Examiner

Kee M Tung

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 14 is objected to because of the following informalities: line, 1, "claim 1" should be --claim 9--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 8-13, 15, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao et al (US 2004/0051714 hereinafter "Liao").

Liao teaches an electronic system (Fig. 3) comprising a memory system (33) of which at least a portion is allocated as a frame buffer (331) to store frame buffer graphics data to be repeatedly retransmitted to a display device (37) wherein the image incorporate at least one text character (It is noted that Liao fails to explicitly suggest or teach, the input image data, such as, a TV signal includes at least one of text character. However, it would have been obvious to one of ordinary skill in the art at the time the present invention was made that the TV signal does includes at least one of text character, such as, close caption text.); a graphics controller (341) coupled to the memory system (33), the graphics controller having compression logic (3411) employing a lossy compression algorithm (It is noted that Liao fails to teach or suggest which compression algorithm he is used which means he is open to any well known

compression algorithm, such as, a lossy compression algorithm, DCT, MPEG, etc ...) to compress the frame buffer graphics data to be stored in the frame buffer, and having decompression logic (3412) to repeatedly decompress the frame buffer graphics data as the frame buffer graphics data is repeatedly retrieved from the frame buffer to be repeatedly retransmitted to the display device. Therefore, at least claim 1 would have been obvious.

As per claim 2, Liao teaches a processor (30) coupled to the memory system and sharing the memory system with the graphics controller such that the processor executes instruction stored in the memory system.

As per claim 3, Liao teaches a graphics data source (34) accessible to the processor such that the processor controls the provision of input graphics data by the graphics data source to the graphics controller.

As per claim 4, Liao teaches the compression logic utilizes a DCT and quantization of DCT coefficients generated by the DCT (see claim 1 for teachings of well known DCT).

As per claim 8, Liao further teaches a font bitmap of an image of the at least one text character that is compressed by the compression logic, stored in the memory system, and is retrieved by the graphics controller from the memory system to be decompressed by the decompression logic (also see claim 1 above for teachings of the close caption text).

Claims 9-13 are similar in scope to claims 1-4 and 8, and thus are rejected under similar rationale.

Claims 15, 16, and 18 are similar in scope to claims 1, 3 and 8, and thus are rejected under similar rationale.

4. Claims 5-7, 14, 17, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao et al as applied to claims 1, 9 and 15 above, and further in view of MacInnis et al (6,189,064 hereinafter "MacInnis").

The teachings of Liao are given in previous paragraph of this Office action. Liao teaches the image pickup device (343) can be a TV signals decoder, is employed to convert analog signal data into digital image data, such as, in YUV format (paragraph 30) which is separate from graphics controller or compression logic. MacInnis teaches a graphics display system integrated circuit (Fig. 1) with UMA (28) is used in a set-top box for controlling a TV display. The graphics display system processes analog and digital video data and graphics input data; and the integrated graphics display system comprising a video decoder (50) having a bypass video feature to bypass feature where the incoming signal has already compressed (col. 4, lines 10-39); video encoder (62); a graphics accelerator (64); a display engine (58 and Fig. 5) includes color converter (134-138); and memory controller (56) and many other features as shown in the specification. It would have been obvious to one of ordinary skill in the art at the time the present invention was made to combine the teachings of detailed integrated graphics display system into the system of Liao in order to increase the performance of the electronic device, such as, set-top box, integrated digital TV, home network computers etc ... as taught by MacInnis (col. 1, lines 45-60). Therefore, at least claim 5 would have been obvious.

As per claim 6, MacInnis teaches the compression logic samples chrominance values in a 1:1 ratio with luminance values to limit blurring an orthogonal line of the at least one text character (such as, YUV444 format, col. 7, lines 25-38).

As per claim 7, MacInnis teaches a graphics data source coupled to the graphics controller (10) such that the graphics controller receives input graphics data from the graphics data source, wherein the input graphics data is received in a compressed form, is stored by the graphics controller into the memory system while bypassing the compression logic, and is retrieved by the graphics controller from the memory system to be decompressed by the decompression logic (col. 4, lines 10-39).

Claim 14 is similar in scope to claim 7, and thus is rejected under similar rational.

Claim 17 is similar in scope to claim 6, and thus is rejected under similar rational.


Claims 19-21 are similar in scope to claims 7, 5, and 6, and thus are rejected under similar rational.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kee M Tung whose telephone number is 571-272-7794. The examiner can normally be reached on Tuesday - Friday from 5:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kee M Tung
Primary Examiner
Art Unit 2676